

Site Description

- Location:** ! 2 miles southeast of LaMarque, Galveston county.
! I-45 and State Highway 3.
- Population:** ! Nearest residence is 1700 feet.
! Approximately 3,000 people live within a one mile radius.
- Setting:** ! 11.3 acres.
! Originally seven pits with surface area of 4.6 acres, 15-20 feet deep.
! Interim Remedial Measures removed 9 tanks in 1984.
- Hydrology:** ! Gulf Coastal Plain at the edge of a coastal marsh system.
! Located within 100-year flood plain.
! Located outside of Hurricane levee.
! Lies atop the Beaumont clay formation.
! Significant ground water sand at 200' and Alta Loma sand at 600'.

Wastes and Volumes

- ! The principal pollutants at the MOTCO site include styrene tars in sludges and soils, volatile organics in sludges, soils, oils and ground water, heavy metals in sludges and soils. Dense Nonaqueous Phase Liquids (DNAPLs) have been detected at concentrations of 380,000 ppm for Bis(2-chloroethyl)ether.
- ! Waste volumes at the site:
- | | |
|--|---|
| ! Pit water: 15 million gallons. | ! Pit Organic liquids: 7 million gallons. |
| ! Pit Sludges and tars: 14,000 tons. | ! Soils: 60,000 tons. |
| ! DNAPLs in Subsurface: 4 million gallons. | |

Site Assessment and Ranking

NPL LISTING HISTORY

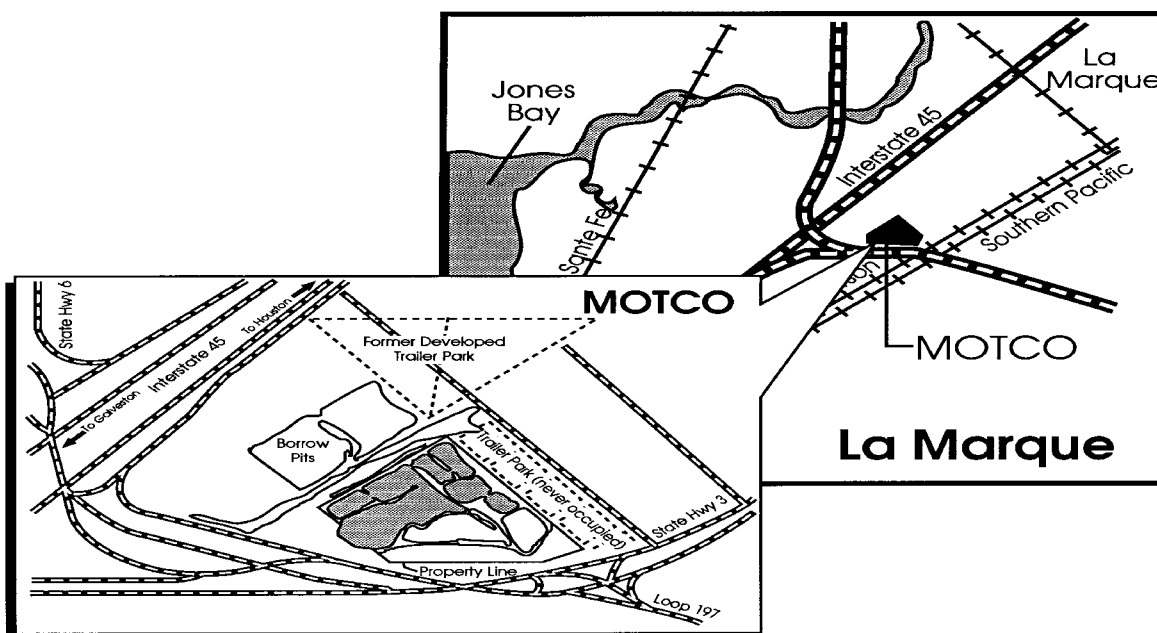
Site HRS Score: 62.66

Proposed Date: 7/23/82

Final Date: 9/08/83

NPL Update: No. 1

Site Map and Diagram



The Remediation Process

Site History:

- ! Site developed in 1958 for waste recycling, contaminated until 1968 when Hurricane Carla forced the end of waste recycling and dumping.
- ! Approximately 500,000 gallons of material deposited, some removed during attempts at waste recycling in 1970s.
- ! 1974 - MOTCO Corporation acquired ownership and established an operation to remove and market styrene tars.
- ! 1974 - MOTCO abandoned site. Seven unlined pits remained with contamination migrating to the subsurface. As a result, ground water is heavily contaminated and has migrated off-site.
- ! Emergency actions took place in 1980, 1981, 1982, 1983, and 1985.
- ! December 1980 - April 1985, EPA conducted four (4) removal actions to stabilize the site.

Hundreds of gallons of contaminated water were pumped, treated and discharged from the site.

- ! December 1986, rains raised liquid levels to within four inches of overtopping the dike. An additional removal action was initiated to repair the dike.

Health Considerations:

- ! Nearest drinking water well is 2,200 ft. from site

Other Environmental Risks:

- ! Surface water, ground water, and soil are contaminated.
- ! Contamination has migrated 300 feet off-site.
- ! Contaminants found to a depth of 100 feet.
- ! If left unremediated, DNAPLs and contaminated ground water will continue to migrate vertically and laterally.

Removal Actions:

3/80: Dump and tank removal, capping, soil removal and diking, onsite disposal.

9/81: Pit draw-down and disposal, site fencing.

2/83, 9/83, 4/85, 12/86: Pit draw-down and disposal

Record of Decision

ROD History

Signed: March 15, 1985 (Source Control)

Signed: September 27, 1989 (Management of Migration)

Explanation of Significant Differences: January 13, 1993

Management of Migration (MOM) and Ground Water:

- ! Recovery and Treatment of contaminated ground water.
- ! Recovery and incineration of dense, non-aqueous phase liquids (DNAPLs)
- ! Excavation, consolidation and capping slightly contaminated surface soils.

Source Control:

- ! Biological treatment and/or incineration of pit water.
- ! Incineration of organic liquids on-site or off-site.
- ! Off-site landfilling of sludges/tars/soils or on-site incineration.

Explanation of Significant Differences for Source Control ROD:

- ! Off-site incineration of liquids/sludges/tars.
- ! On-site landfilling of soils.

Other Remedies Considered Reasons Not Chosen

-----Source Control-----

- | | |
|--|--------------------------------|
| 1. On-site TSCA/RCRA closure | Cost |
| 2. Off-site TSCA/non-RCRA disposal | Non-compliance/not RCRA |

-----MOM-----

- | | |
|---|---|
| 1. Institutional controls | Non-compliance with ARAR's |
| 2. Containment (slurry walls) | Non-compliance with SARA for treatment |
| 3. Incineration of surface soils | Metal contaminants on surface soils for treatment |
| 4. Bio-remediation of surface soils | Metal contaminants in surface soils not bio-not bio-degradable |
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Community Involvement

- ! Community Involvement Plan: Developed 07/87, Revised 3/89
- ! Open houses and workshops: 11/90, 10/93
- ! Original Proposed Plan Fact Sheets and Public Meetings: 1/86 (Source Control); 7/89 (MOM)
- ! Original ROD Fact Sheets: 11/89 (MOM)
- ! Milestone Fact Sheets: 4/89, 6/90, 7/90, 11/90, 4/91, 2/92, 3/93 (ESD), ongoing fact sheets by Motco Trust Group (PRPs), most recent, 1/97
- ! Citizens on site mailing list: 270
- ! Constituency Interest: High level of organized interest; concerns regarding air emissions during trial burns, litigation between PRPs and their previous contractor over specific performance.
- ! Site Repository: College of the Mainland Library, 1200 Amburn Road, Texas City, TX 77591

Technical Assistance Grant

- ! Availability Notice: 9/30/88; Re-advertised 1/3/90 and 1/7/90
- ! Letters of Intent Received:
 - 1) MOTCO Citizens Group - 11/1/88
 - 2) LaMarque MOTCO Group - 12/20/88
 - 3) Texans For A Healthy Environment - 12/20/91
 - 4) Environmental Protection Advisory Group - 12/28/91
- ! Final Application Received: No groups have as yet submitted applications
- ! Grant Award: None
- ! Current Status: No further interest.

Contacts

- ! **Remedial Project Manager (EPA):** Carlos A. Sanchez, 214-665-8507, Mail Code: 6SF-AP
- ! **EPA Region 6 Ombudsman:** Arnie Ondarza, 214/665-6790
- ! **State Contact (TNRCC):** Luda Voskov, 512/239-6368, Mail Code MC-143
- ! **Community Coordinator (EPA):** Donn Walters, 214-665-6483, Mail Code: 6SF-P
- ! **Attorney (EPA):** Pam Travis, 214-665-8056, Mail Code: 6SF-DL
- ! **State Coordinator (EPA):** Karen Bond, 214-665-6682, Mail Code: 6SF-AP

Enforcement

- ! Twenty major PRPs were identified for the site.
- ! EPA signed Source Control Mixed Funding Agreement on October 20, 1987 with the MOTCO Trust Group consisting of 20 PRPs. Under this agreement, EPA agreed to pay 21% of the remediation costs.
- ! In June 1991, EPA paid the MOTCO Trust \$2.8 million as part of the first Superfund Mixed Funding Agreement, for construction completion as part of the 1987 Source Control Consent Decree.
- ! Administrative Order On Consent was signed on March 17, 1987 with the PRPs to conduct the Feasibility Study (FS) for Management of Migration (MOM).
- ! The Negotiation Moratorium for implementation of the Remedial Design/Remedial Action (RD/RA) ended April 1990; PRPs failed to make acceptable good faith offer for MOM RD/RA.
- ! EPA issued a Unilateral Administrative Order (UAO) for Remedial Design to 7 PRP's: Five companies in Trust Group and two new ones, based on new information gathered.
- ! Remedial Design was performed by the PRPs under the UAO.
- ! EPA settled with Malone Trucking Company in October 1991 for \$150,000.
- ! Consent Decree entered in July 1992 for recovery of past MOM costs for approximately \$300,000.
- ! EPA issued a UAO October 22, 1992, for implementation of the MOM RA, and in December 1992, reissued the UAO for pre-construction work on the MOM operable unit.
- ! Explanation of Significant Differences (ESD) was signed on January 13, 1993.
- ! Due to the ESD and the completion of the MOM Design, EPA negotiated a combined Consent Decree in July 1993 with the MOTCO Trust Group for implementation of the revised Source Control remedy and the MOM remedy. The Second Consent Decree did not include mixed funding.

Present Status and Issues

- ! Since February 1993, MOTCO has been conducting work under the 1993 UAO and the 1993 Consent Decree. Off-site incineration is completed. EPA granted a three month extension in June 1993. EPA granted a 15 month extension in 1995. EPA granted a four month extension in December of 1996.
- ! Estimated cost to complete site cleanup has been estimated at over \$100 million by the PRPs.
- ! EPA's Superfund Division Director signed the Preliminary Close Out Report for the MOTCO site on September 30, 1997 which documents construction completion for the

Source Control remedial action and the ground water pump and treatment system for Management of Migration.

- ! The MOTCO Trust Group is continuing the long term pump and treatment of the contaminated ground water and O&M for the source control cap.

Benefits

To date the following has been cleaned up at the MOTCO Superfund site:

- ! 7,568 tons of oil
- ! 8,000 tons of sludge/tar
- ! 4,699 tons of soil
- ! over 7 million gallons of contaminated groundwater
- ! over 3.5 million gallons of contaminated pit water
- ! over 1,800 gallons of DNAPL

The MOTCO clean up will ultimately mitigate risks from 22 million gallons of liquid waste, and 74,000 tons of contaminated soils, sludge, and tars for over 3,000 people living within a one mile radius of the site.